

REMARKS

In the Final Office Action mailed February 24, 2006, claims 21-42 were rejected under 35 U.S.C. § 102(e) as anticipated unpatentable by U.S. Patent No. 6,408,342 to *Moore et al.* ("*Moore*"); claims 21-26, 30-35, and 39-42 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 5,764,915 to *Heimsoth et al.* ("*Heimsoth*"). Based on the following arguments, Applicants respectfully traverse the rejections below. Applicants note that the Final Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants do not automatically subscribe to any statement or characterization in the Final Office Action.

I. Rejections of Claims 21-42 under 35 U.S.C. § 102 (e) in View of *Moore*

In order to properly anticipate Applicants' claimed invention under 35 U.S.C. § 102(e), each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Further, "[t]he identical invention must be shown in as complete detail as is contained in the...claim." See M.P.E.P. § 2131 (8th Ed., Aug. 2001), quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, "[t]he elements must be arranged as required by the claim." M.P.E.P. § 2131 (8th Ed. 2001), p. 2100-69.

Applicants traverse the rejection of claims 21-42 under 35 U.S.C. §102(e) based on *Moore* because the reference does not support the Examiner's assertions that the reference teaches each and every recitations in these claims. *Moore* discloses a communication framework that supports multiple communications protocols (Abstract). *Moore* further discloses that in the process of adding a binding address to an ObjectReference 501, the communication framework creates a new ObjectReference 501 for a target object whenever the target object is first registered with the communication framework (col. 22, lines 32-34). Optionally, the construction of the ObjectReference 501 may be delayed until it is needed, thus avoiding any unnecessary processing associated with the creation of ObjectReference 501 (col. 22, lines 35-37).

The Examiner asserts that *Moore* teaches deferring reconstruction of the object until requested to perform reconstruction by the program (OA at 2). To support this assertion, the Examiner refers to the marshaling and demarshaling of arguments passed to remote methods by defining an outstream class as teaching receiving an object in a form of a stream from a remote RPC mechanism. The Examiner further refers to the process of adding a binding address to an ObjectReference as teaching deferring reconstruction of the object (OA at 2-3).

As argued by Applicants in the response of November 15, 2005, the ObjectReference 501 disclosed by *Moore*, is not an object received in the form of a stream from a remote RPC mechanism, and of which the reconstruction is deferred, as

asserted by the Examiner. The Examiner cites one portion in *Moore* related to an Outstream class object for disclosing receiving an object in a form of a stream from a remote RPC mechanism (OA at 2). The Examiner then refers to the Object Reference 501 in another portion of *Moore* as disclosing the object with deferred reconstruction (OA at 3). However, the referred to portions of *Moore* do not teach or suggest receiving an object and deferring reconstruction of the object, as alleged by the Examiner.

The referred to portions of *Moore* disclose that the communication framework creates a new ObjectReference 501 for a target object whenever the target object is first registered with the communication framework. And optionally, the construction of the ObjectReference 501 may be delayed until it is needed (col. 22, lines 32-37). *Moore* further discloses the created ObjectReference 501 is then passed (marshaled and demarshaled using Instream and Outstream) to other processes as needed (col. 22, lines 38-39). That is, in *Moore*, ObjectReference 501 is created/constructed by the framework first, and then passed to processes. Indeed, consistent with this sequence of actions, in *Moore*, the ObjectReference 501 is created/constructed rather than reconstructed by the framework, contrary to the assertion by the Examiner. Thus, the Examiner has not shown that *Moore* discloses receiving an object in a form of a stream from a remote RPC mechanism and deferring reconstruction of the object until requested, as asserted in the Office Action. For at least these reasons, the rejection of independent claim 21 under 35 U.S.C. § 102(e) should be withdrawn.

The Examiner rejects independent claims 23, 25, 30, 32, 34, 39, and 40 for the same reasons set forth in the rejection of claim 21. Although claims 23, 25, 30, 32, 34, 39, and 40 are of different scope than claim 21, the rejection of claims 23, 25, 30, 32, 34, 39, and 40 is equally unsupported by *Moore*. As explained above in connection with claim 21, *Moore* does not teach or suggest receiving an object in a form of a stream from a remote RPC mechanism and deferring reconstruction of the object until requested by the program, as asserted by the Examiner. Accordingly, for at least reasons similar to those presented above in connection with claim 21, the rejection of independent claims 23, 25, 30, 32, 34, 39, and 40 under 35 U.S.C. § 102(e) should be withdrawn.

Claim 22 depends from claim 21. Claim 24 depends from claim 23. Claim 26 depends from claim 25. Claim 31 depends from claim 30. Claim 33 depends from claim 32. Claim 35 depends from claim 34. As explained, *Moore* fails to support the rejection of independent claims 21, 23, 25, 30, 32, 34, 39, and 40. Accordingly, it follows that *Moore* does not support the rejection of dependent claims 22, 24, 26, 31, 33, and 35 for at least the same reasons set forth above in connection with claims 21, 23, 25, 30, 32, 34, 39, and 40. Thus, Applicants request that the rejection of claims 22, 24, 26, 31, 33, and 35 under 35 U.S.C. § 102(e) be withdrawn and the claims allowed.

In rejecting independent claim 27, the Examiner asserts that *Moore* teaches receiving a stream containing an identifier of an event listener and a self-describing form of an object associated with a request for notification of a particular event within the distributed system, and in response to occurrence of the particular event, sending the

stream to the identified event listener for reconstruction of the object using program code identified in the stream (OA at 7). Applicants respectfully disagree.

As argued by Applicants in the response of November 15, 2005, *Moore* discloses that an RPC_Transport 305 includes a listener to receive incoming requests for the physical media support by the protocol (col. 25, lines 52-54). *Moore* further discloses that the listener is RPC_Server 315. And the listener demarshals the object identifier, the virtual process identifier, and the operation name associated with the incoming request (col. 25, lines 55-58). As shown in Figure 5 of *Moore*, the listener RPC_Server 315 is a component of RPC_Transport 305 (col. 10, lines 40-42). Therefore, there is no need for an RPC_Transport 305 to receive an identifier of the event listener RPC_Server 315 in the incoming requests. Accordingly, *Moore* does not teach or suggest receiving a stream containing an identifier of an event listener, as asserted by the Examiner.

Further, *Moore* discloses that the RPC_Transport 305 uses the information from the demarshaled object identifier, the virtual process identifier, and the operation name associated with the incoming request to create an IncomingCall instance. In *Moore*, the RPC_Transport 305, not the event listener RPC_Server 315, constructs the IncomingCall instance. Further, the IncomingCall object is created in this process, not sent and reconstructed, as asserted by the Examiner. Therefore, *Moore* does not teach or suggest sending the stream to the identified event listener for reconstruction of the object, as asserted by the Examiner. For at least these reasons, the rejection of independent claim 27 under 35 U.S.C. § 102(e) should be withdrawn.

Applicants note that similar arguments were presented in Applicants' response filed November 15, 2005 for the Examiner's consideration. The Examiner does not address these arguments in the Final Office Action. Instead, in maintaining the rejection to claim 27, the Examiner repeats the same arguments presented in the previous Office Action mailed November 2, 2005. As such, the Examiner's response is legally improper because it does not address the recitations of claim 27 or any of Applicant's previously presented arguments. (See *M.P.E.P.* § 707.07(f) ("[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it.").)

The Examiner rejects independent claim 36 for the same reasons set forth in the rejection of claim 27. Although claim 36 is of different scope than claim 27, the rejection of claim 36 is equally unsupported by *Moore*. As explained, *Moore* does not teach or suggest receiving a stream containing an identifier of an event listener, as asserted by the Examiner. Further, *Moore* does not teach sending, in response to occurrence of the particular event, the stream to the identified event listener for reconstruction of the object, as asserted by the Examiner. For at least reasons similar to those presented above in connection with claim 27, the rejection of independent claim 36 under 35 U.S.C. § 102(e) should be withdrawn and the claim allowed.

Claims 28 and 29 depend from claim 27 and claims 37 and 38 depend from claim 36. As explained, *Moore* fails to support the rejection of claims 27 and 36. Accordingly, it follows that *Moore* does not support the rejection of claims 28, 29, 37, and 38 for at least

the same reasons set forth above in connection with claims 27 and 36. Thus, Applicants request the rejection of these dependent claims be withdrawn and the claims allowed.

In rejecting independent claims 41 and 42, the Examiner again asserts that the "rejection of claims 21-26 under 35 U.S.C. § 102(e) (paragraphs 6.1-6.6 above) applies fully" (OA at 7). As argued in the response filed November 15, 2005, Applicants disagree with the Examiner's position for the following reasons.

First, the Examiner improperly relies on the rejection of claims 21-26 to support the assertion that *Moore* teaches an apparatus for providing notification of an event in a distributed system including, among other things, a transmitting machine, an event generator, and an event listener that is configured to reconstruct an object by accessing program code identified in a stream. Because these features are not recited in claims 21, 22, and 25, the Examiner's position that the rejection of these claims apply to the recitations of claim 41 is improper and should be withdrawn.

Further, *Moore* does not teach a transmitting machine, an event generator, and an event listener that is configured to reconstruct an object by accessing program code identified in a stream, as implied by the Examiner. As explained, *Moore* describes processes that optionally delay the construction of a reference object, but fails to disclose event listeners and generators, as alleged by the Examiner. Further, *Moore* does not teach an apparatus for deferring reconstruction of an object including, among other things, a transmitting machine configured to specify an object, form a stream out of the object, and send the stream to an intermediate object, and the intermediate machine

configured to send the stream to a receiving machine in response to an occurrence of an event, and the receiving machine configured to reconstruct the object by accessing program code identified in the stream. Additionally, *Moore* does not teach or suggest the above-noted features, as alleged by the Examiner. The cited reference does not teach or suggest an intermediate machine configured to send the stream to a receiving machine in response to an occurrence of an event, and a receiving machine configured to reconstructing the object by accessing code identified in the stream, as asserted by the Examiner. Because these features are not recited in claims 21, 22, and 25, the Examiner's position that the rejection of these claims apply to the recitations of claim 42 is improper and should be withdrawn.

Applicants note that similar arguments were presented in Applicants' response filed November 15, 2005 for the Examiner's consideration. In maintaining the rejection of claims 41 and 42 the Examiner does not address these arguments, but instead, reiterates the same position set forth in the last Office Action (i.e., that the rejection of claims 21-26 applies fully) (OA at 10). The Examiner's response is legally improper because it does not address the recitations of claims 41 and 42 or any of Applicant's previously presented arguments. (See *M.P.E.P.* § 707.07(f) ("[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it.").)

Because the cited art does not support the rejection of these claims, Applicants respectfully request that the rejections of these claims under 35 U.S.C. § 102(e) be withdrawn and the claims allowed.

II. Rejections of Claims 21-26, 30-35, and 39-42 under 35 U.S.C. § 102 (e) in View of *Heimsoth*

In rejecting claim 21 under 35 U.S.C. § 102(e), the Examiner asserts that *Heimsoth* teaches receiving an object in a form of a stream from a remote RPC mechanism and deferring reconstruction of the object until requested to perform reconstruction by the program. See, OA at 8 (citing Fig. 9D; col. 30, lines 1-10; col. 29, lines 41-46; and col. 31, lines 5-18). The Examiner contends that the rebuilding process performed by the server in *Heimsoth* (in col. 29, lines 41-46. col. 30, lines 1-10, and col. 31, lines 5-18) teaches deferring reconstruction of an object until requested by a program. Applicants respectfully disagree with the Examiner's interpretation of *Heimsoth*.

Heimsoth teaches an object-oriented protocol interface that establishes communication paths between endpoints in a network (Abstract). In *Heimsoth*, an ProcessOperation function is called for the TClientStackHead to process the TNetworkOperation object. The ProcessOperation function flattens the TNetworkOperation object and send the flattened operation object to the server using RPC/IPC mechanisms. The ProcessOperation function also rebuilds the TNetworkOperation objects when the server responds to the request that was sent (col. 30, lines 1-10). However, contrary to the Examiner's assertion that "the request" refers to

a later request, "the request" in *Heimsoth* merely refers to the same request that calls the ProcessOperation function to flatten the TNetworkOperation object and send the flattened object to the server using the RPC/IPC mechanism provided by the server. *Id.* Such a process is described subsequently in Fig. 9D of *Heimsoth*, "a network request from the client is sent to the ServerProcess Thread 727 as a TNetworkOperation object using the system RPC or IPC mechanisms. The ServerProcess rebuilds the TNetworkOperation object, then locates the TServerStackHead object that represents the endpoint1."¹ (col. 31, lines 5-9). That is, *Heimsoth* discloses communication processes that use conventional RPC mechanisms which rebuild the object automatically once the object is received. *Heimsoth* does not teach or suggest deferring the reconstruction of an object received in the form of a stream from an RPC mechanism, as asserted by the Examiner.

Because *Heimsoth* does not support the rejection of claim 21. Applicants respectfully request that the rejection of this claim under 35 U.S.C. § 102(e) be withdrawn and the claim allowed.

Claim 30 is directed to a data processing system comprising elements that perform operations similar to the steps described above with reference to claim 21. Claim 39 is directed to a computer-readable medium containing instructions for controlling a data processing system to perform the method described above with reference to claim 21. As

¹ *Heimsoth*, Col. 30, lines 31-34, "2. ProcessOperation: This function is called by the NetworkServerProcess upon receiving a NetworkOperation object from the client. This function calls the Execute() method on the TNetworkOperation object after locating appropriate ProtocolLayer object. The Execute() method then calls the required method on the ProtocolLayer object."

explained, the rejection of claim 21 is unsupported by the cited art. Accordingly, it follows that the rejection of claims 30 and 39 are also unsupported by the cited art for at least the same reasons set forth above in connection with claim 21. Therefore, Applicants request that the rejection of these claims be withdrawn and the claims allowed.

Further, Applicants traverse the Examiner's assertion that *Heimsoth* teaches "reconstructing the object using code identified in the stream, when requested to perform reconstruction by the program (Fig. 9D; col. 29, lines 41-46; col. 31, lines 5-18)" (OA at 8). As explained, *Heimsoth* provides no support for the Examiner's contentions. Instead, the reference merely describes conventional RPC processes without discussing the reconstruction of the object using code identified in the stream when requested by a program, as alleged by the Examiner. Thus, Applicants request the rejection of claim 22 be withdrawn.

Further, claims 22 and 31 depend upon claims 21 and 30, respectively. As explained, the rejection of claims 21 and 30 is not supported by the cited art for at least the same reasons set forth above in connection with claim 21. Accordingly, it follows that the rejection of claims 22 and 31 is also unsupported by the cited art. Therefore, Applicants request that the rejection of claims 21-22 and 30-31 be withdrawn and the claims allowed.

In rejecting claim 25, the Examiner asserts that *Heimsoth* teaches, *inter alia*, "deferring reconstruction of the object by the first RPC mechanism until the stream is returned from the second RPC mechanism to the first RPC mechanism in response to the

occurrence of an event (Fig. 9D; col. 30, lines 1-10; col. 29, lines 41-46; col. 31, lines 5-18)" (OA, at 10). Applicants note that the Examiner cites to the same portions of *Heimsoth* that are relied upon to reject claim 21. Applicants disagree with the Examiner's interpretation of *Heimsoth*.

As explained in the arguments set forth above in connection with claim 21, *Heimsoth* describes communication processes that use conventional RPC mechanisms that include object rebuilding functions. That is, the reference discloses communication process that enable an object to be sent to a server using RPC mechanisms. Although the cited art may disclose rebuilding objects, it does not teach or suggest deferring the reconstruction of an object by the first RPC mechanism until the stream is returned from the second RPC mechanism to the first RPC mechanism in response to the occurrence of an event, as asserted by the Examiner.

In light of the above remarks, Applicants submit that the rejection of claim 25 is not supported by the cited reference. Accordingly, Applicants respectfully request that the rejection of this claim under 35 U.S.C. § 102(e) be withdrawn and the claim allowed.

Claim 34 is directed to an apparatus comprising elements that perform operations similar to the steps described above with reference to claim 25. As explained, the rejection of claim 25 is unsupported by the cited art. Accordingly, it follows that the rejection of claim 34 is also unsupported by the cited art and Applicants request that the rejection of this claim be withdrawn and the claim allowed.

Claims 26 and 35 depend upon claims 25 and 34, respectively. As explained, the rejection of claims 25 and 34 are not supported by the cited art. Accordingly, the rejection of claims 26 and 35 are also unsupported by the cited art. Therefore, Applicants request that the rejection of these claims be withdrawn and the claims allowed.

Claims 23, 32, and 40 include recitations similar to those of claim 21. As explained, *Heimsoth* does not support the rejection of claim 21. Accordingly, it follows that the cited art does not support the rejection of claims 23, 32, and 40 for at least the same reasons set forth in connection with claim 21. Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(e) be withdrawn and the claims allowed.

Claims 24 and 33 depend on claims 23 and 32, respectively. As explained, *Heimsoth* fails to support the rejection of claims 23 and 32. Accordingly, it follows that the cited art does not support the rejection of claims 24 and 33, and Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(e) be withdrawn and the claims allowed.

In rejecting claims 41 and 42, the Examiner asserts that the “rejection of claims 21-26 under 35 U.S.C. § 102(e) (paragraphs 7.1-7.6 above) applies fully” (OA at 10). Applicants disagree with the Examiner’s position for the following reasons.

First, the Examiner improperly relies on the rejection of claims 21, 22, and 25 to support the assertion that *Heimsoth* teaches an apparatus for providing notification of an event in a distributed system including, among other things, a transmitting machine, an

event generator, and an event listener that is configured to reconstruct an object by accessing program code identified in a stream. Further, Applicants note that *Heimsoth* does not teach a transmitting machine, an event generator, and an event listener that is configured to reconstruct an object by accessing program code identified in a stream, as implied by the Examiner. As explained, *Heimsoth* merely describes processes that allow a server to build an object, but fails to disclose event listeners and generators as mentioned above. Because these features are not recited in claims 21, 22, and 25, the Examiner's position that the rejection of these claims apply to the recitations of claim 41 is improper and should be withdrawn.

Further, the Examiner improperly relies on the rejections of claims 21, 22, and 25 to support the assertion that *Heimsoth* teaches an apparatus for deferring reconstruction of an object including, among other things, a transmitting machine configured to specify an object, form a stream out of the object, and send the stream to an intermediate object, and the intermediate machine configured to send the stream to a receiving machine in response to an occurrence of an event, and the receiving machine configured to reconstruct the object by accessing program code identified in the stream. Additionally, *Heimsoth* does not teach or suggest the above-noted features, as alleged by the Examiner. The server may also rebuild an object sent to it by a client using an RPC mechanism. Although the cited reference may disclose rebuilding objects, it does not teach or suggest an intermediate machine configured to send the stream to a receiving machine in response to an occurrence of an event, and a receiving machine configured to

reconstructing the object by accessing code identified in the stream, as asserted by the Examiner.

Because these features are not recited in claims 21, 22, and 25, the Examiner's position that the rejection of these claims apply to the recitations of claim 42 is legally deficient and should be withdrawn.

Because the cited art does not support the rejection of claims 41 and 42, and the Examiner again fails to properly address these claims, Applicants respectfully request that the rejection of these claims withdrawn and the claim allowed.

Applicants note that similar arguments were presented in Applicants' response filed November 15, 2005, for the Examiner's consideration. The Examiner does not address these arguments in the Final Office Action. Instead, the Examiner repeats the same position that the rejection of claims 21-26 applies fully without responding to the substance of Applicants arguments. Thus, the Examiner's response is improper because it does not address the recitations of claims 30-35 and 39-42 or any of Applicant's previously presented arguments. (See *M.P.E.P.* § 707.07(f) ("[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it.").)

Because the cited art does not support the rejection of claims 21-26, 30-35, and 39-42, and the Examiner again fails to properly address these claims, Applicants respectfully request that the rejection of these claims be withdrawn and the claims allowed.

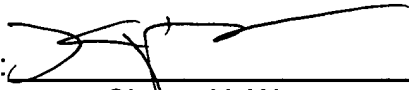
III. Conclusion

The rejection of claims 21-42 should be withdrawn because cited references do not support the rejection of these claims, as asserted by the Examiner. Accordingly, Applicants request the Examiner's reconsideration of the application in view of the foregoing, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: April 24, 2006